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## Industry Excellence

Since 2007...

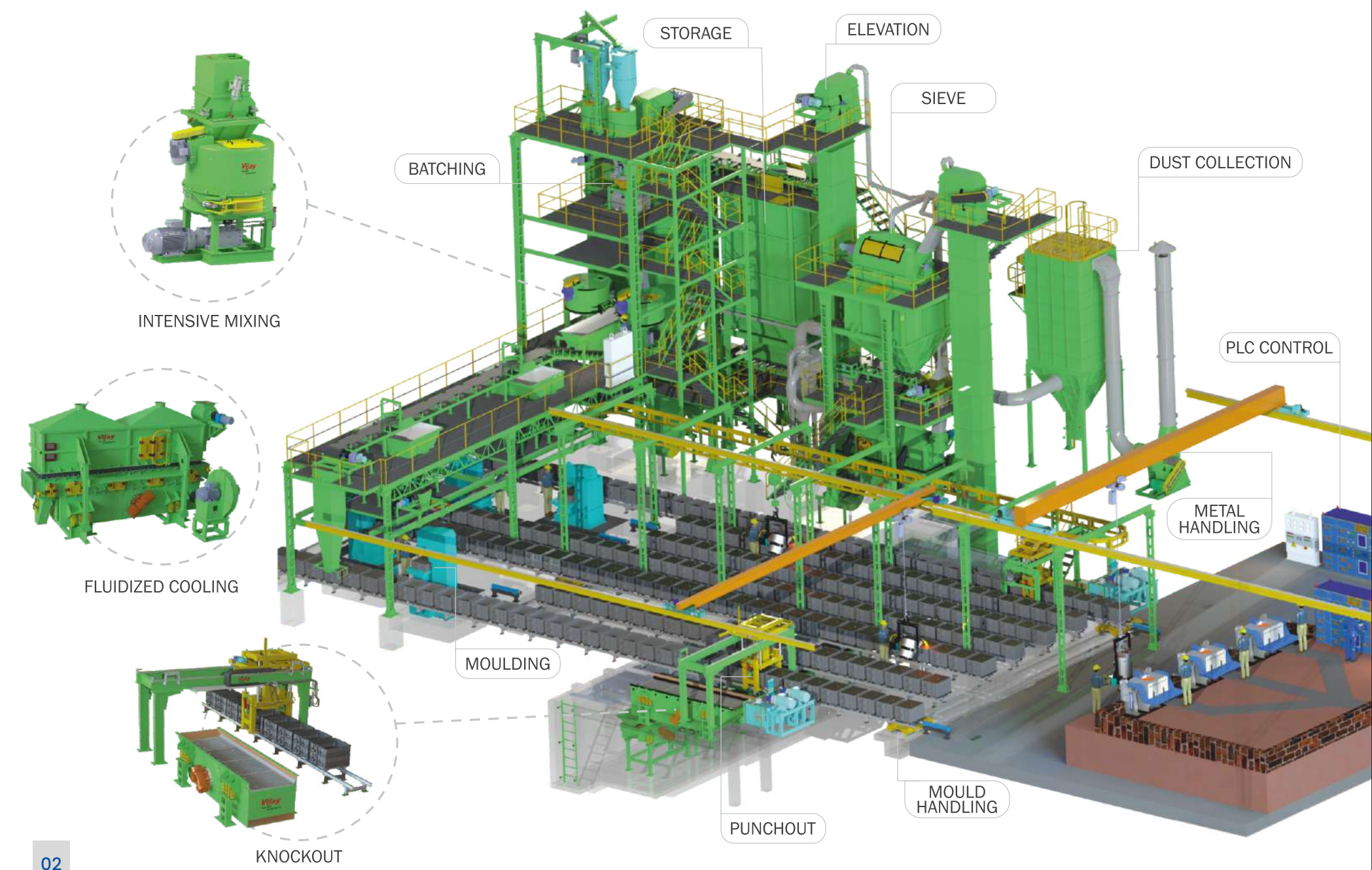
### Who we are...

We are a highly motivated and skilled organization with nearly **18 years of experience** in delivering high-quality products to both indian and international **foundry industries**.

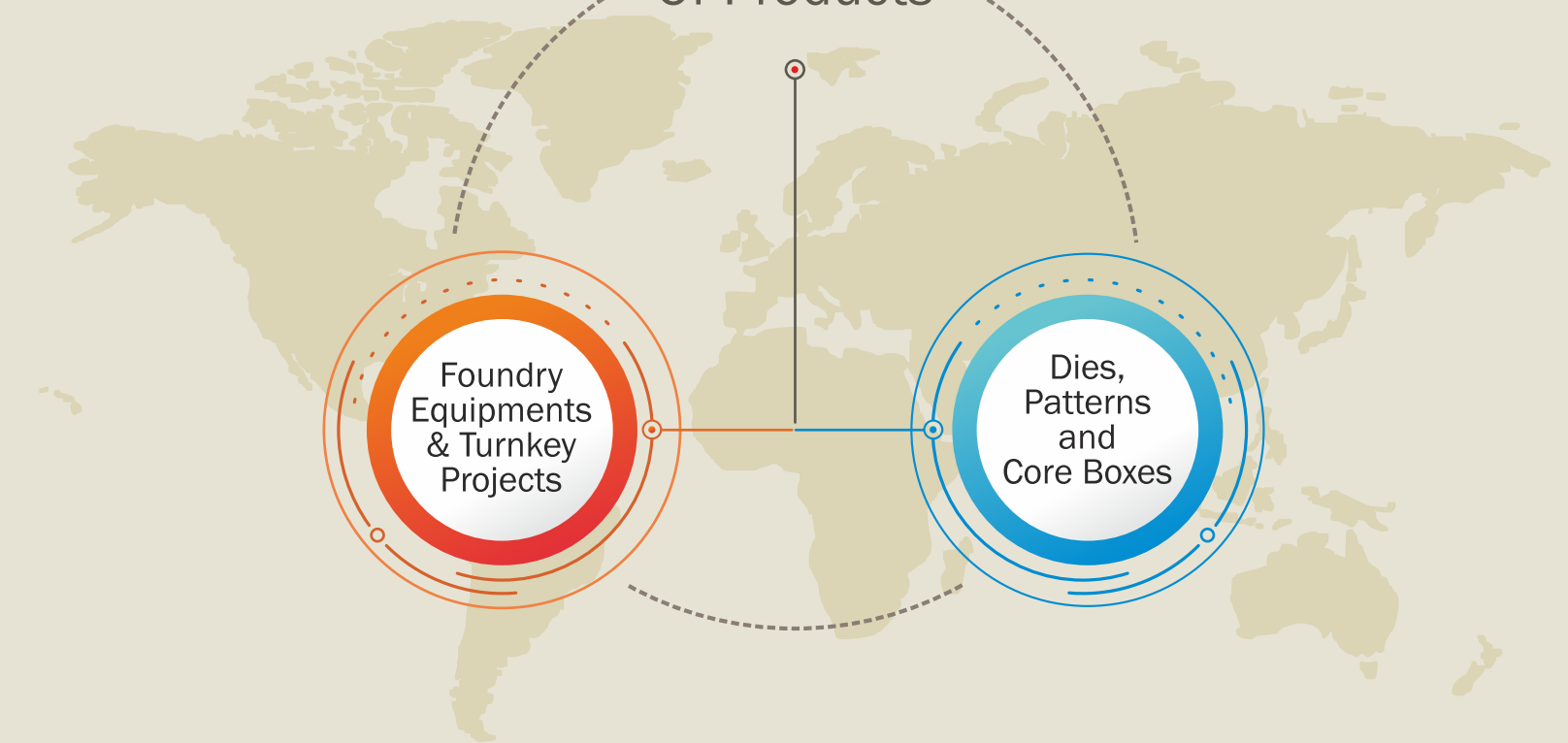
Our sister company **Vijay Foundry Equipment** is a well-established and trusted manufacturer specializing in **Patterns, Core Boxes, Moulding Boxes, Gravity Die Casting (GDC) Dies and High-Pressure Casting Dies**. With a strong foundation of expertise and innovation, we continue to support and strengthen foundry operations worldwide.



# Green Sand Plant



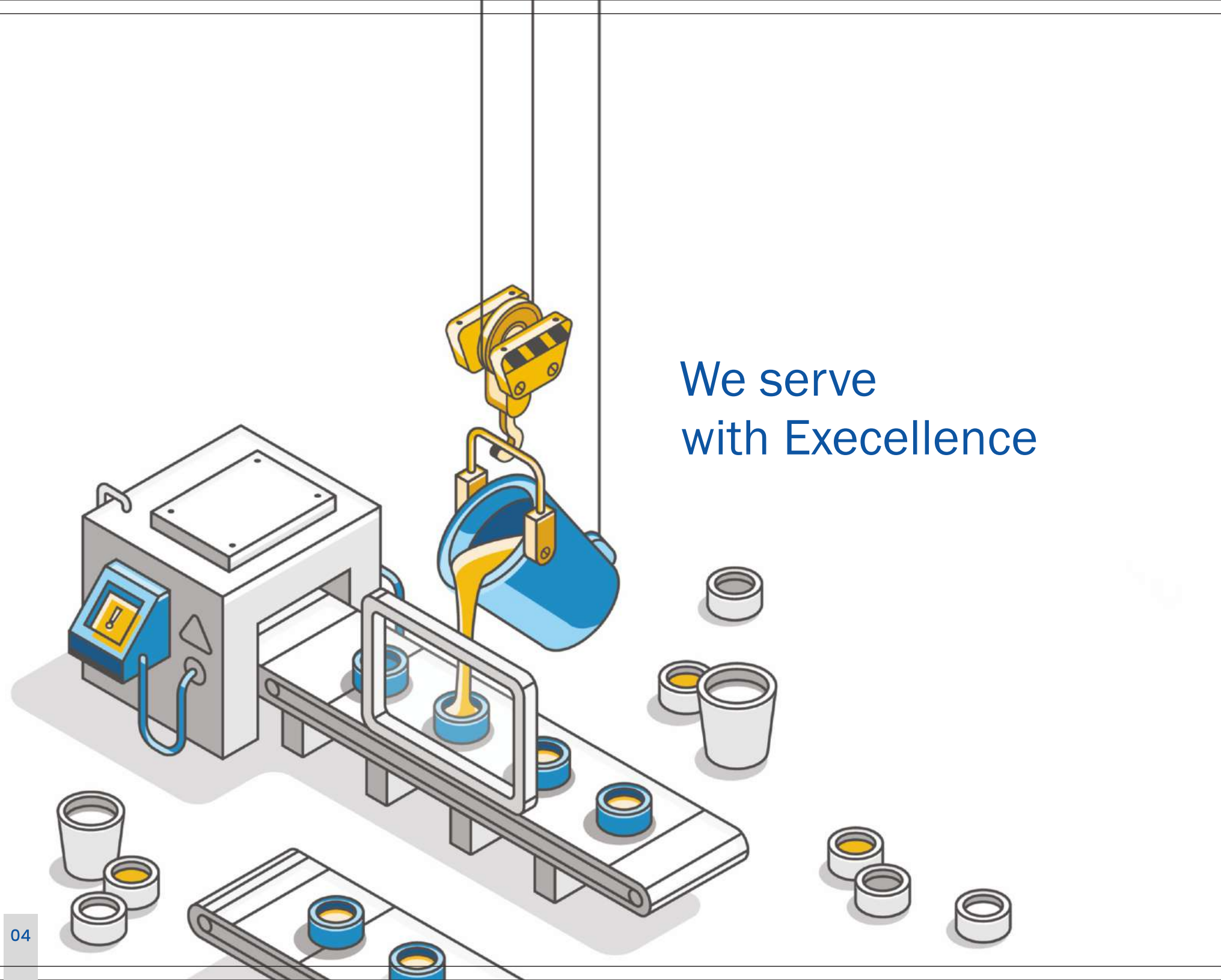
## Our Range Of Products



Foundry Equipments & Turnkey Projects

Dies, Patterns and Core Boxes

Collaboration With  
**ZHU XING 铸星**  
(HPML)



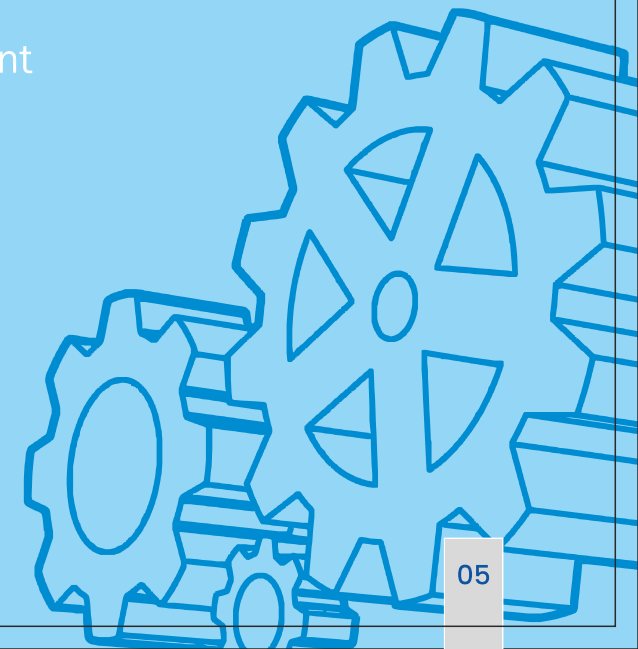
We serve  
with Excellence

### Turnkey Projects For...

-  Fully Automatic Green Sand Plant
-  Lost Foam Casting Plant
-  Sand Dryer Plant
-  Sand Coating Plant
-  Core Shop Automation
-  Mould Handling System

### Dies, Patterns & Core Boxes Manufacturing for...

-  Pump Industry
-  Automobile Sector
-  Educational Sector
-  Oil and Gas Industry
-  Medical Sector
-  Product Development



# Company Infrastructure



## MANUFACTURING FACILITY

Machinery & Equipments	Make	Range
VMC - Double Column VIRAT 2030	BFW - India	3000 x 2000 x 1000
VMC - VF 2	HAAS - USA	762 X 406 X 508
VMC - VF 6	HAAS - USA	1626 X 813 X 762
VMC	JYOTI - INDIA	1510 X 810 X 810
VMC - 1160 (2 Nos)	COSMOS- INDIA	1100 X 650 X 650
SPM CNC Router (Aluminium & Wooden)	HEXA CNC - INDIA	3000 X 2500 X 700
Milling Machine	BFW	1440 X 330
Plasma Cutting Machine	Pro ARC	6000 X 2000
Lathe Machines (4No)	ANNAPURNA	Height 215 to 850
Drilling Machines (4No)	HMT	MT 1 to 4

## DESIGN & DEVELOPMENT DEPARTMENT

Software	Application
3D CAD	CAD Modeling, Sheet Metal Work & CAM
Delcam	CAM
SigmaNEST	Plasma Cutting
Draft Sight 2017	CAD

## Green Sand Plant Solutions



### System Modules

- ⚙️ Knockout and Return Sand Handling
- ⚙️ Bucket Elevator Conveying
- ⚙️ Sand Sieving and Classification
- ⚙️ Sand Cooling and Temperature Control
- ⚙️ Sand Storage and Controlled Distribution
- ⚙️ Sand Batching and Weighing
- ⚙️ Intensive Sand Mixing
- ⚙️ Sand Moulding Operations
- ⚙️ Mould Handling and Transfer
- ⚙️ Metal Handling and Pouring Operations

- ⚙️ Dust Collection and Pollution Control
- ⚙️ PLC-Based Automation and Monitoring
- ⚙️ Fettling and Finishing Operations

- ⚙️ Precision
- ⚙️ Performance
- ⚙️ Productivity

**Vijay's** fully automated Green Sand Plants are designed for continuous, reliable and efficient operation. The system covers every stage of sand preparation from magnetic separation to moulding ensuring high-quality, consistent sand for optimized casting results.

### Capacity Range

- ⚙️ **10 TO 40 TPH**

### Why Choose Vijay Green Sand Plants?

- ⚙️ Fully Integrated Automated System
- ⚙️ High Consistency & Quality Output
- ⚙️ Low Operating & Maintenance Cost
- ⚙️ Accurate Batch Weighing
- ⚙️ Low Energy Consumption
- ⚙️ Maximum Sand Reuse & Recycling
- ⚙️ Robust Engineering - 2 Years Zero Maintenance Assurance

GREEN SAND PLANT

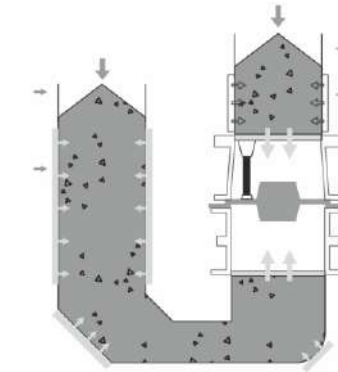
## High Pressure Moulding M/C

- ⚙️ Top & Bottom Aeration Sand Filling Eliminates Insufficient Compaction On Shadow Surfaces.
- ⚙️ Sliding Core Setting
- ⚙️ Pit-Free Installation



### Technical Features

- ⚙️ Fast operation, with speeds reaching up to 100 moulds per hour.
- ⚙️ Slide out the flask for safer core insertion.
- ⚙️ Adjustable and controllable ejection options, allowing for non-ejection or the insertion of smaller cores to increase speed.
- ⚙️ No need for pit excavation.
- ⚙️ Fully sealed to prevent air leakage and sand spillage (The sand shooting bucket and nozzle are rigidly connected without any gaps).
- ⚙️ The sand shooting bucket remains unblocked.
- ⚙️ The machine remains unaffected even when iron pieces or debris are present in the moulding sand.
- ⚙️ There is no scattered sand on the upper box surface.



Working Principle Diagram

### Model & Specification

Model	Z426X	Z4265X	Z427X	Z428X	Z429X	Z4211X	Z4212X	Z4214X
(mm) Mould Size	610x510	650x550	710x610	810x710	900x800	1100x1000	1200x1100	1400x1200
(mm) Mould Height	(up)180~260	(up)180-260	(up)180-260	(up)180~260	(up)260-300	(up)260~330	(up)260~330	(up)260-330
	(down)160-260	(down)160-260	(down) 160-260	(down)160-260	(down)160~260	(down) 160-260	(down) 160-260	(down) 160-260
Moulding Process	Top&Under Aeration sand fill + squeeze	Top&Under Aeration sand fill + squeeze	Top&Under Aeration sand fill + squeeze	Top&Under Aeration sand fill + squeeze	Top&Under Aeration sand fill + squeeze	Top&Under Aeration sand fill + squeeze	Top&Under Aeration sand fill + squeeze	Top&Under Aeration sand fill + squeeze
Slide-out Flask	Y	Y	Y	Y	Y	Y	Y	Y
Moulding Speed	39 sec / mould	39 sec / mould	43 sec / mould	50 sec / mould	55 sec / mould	60 sec / mould	65 sec / mould	70 sec / mould

The size of the sand box can be adjusted appropriately according to the user's demand.  
The moulding speed varies according to the outdoor temperature, air supply and extrusion pressure.



### Technical Features

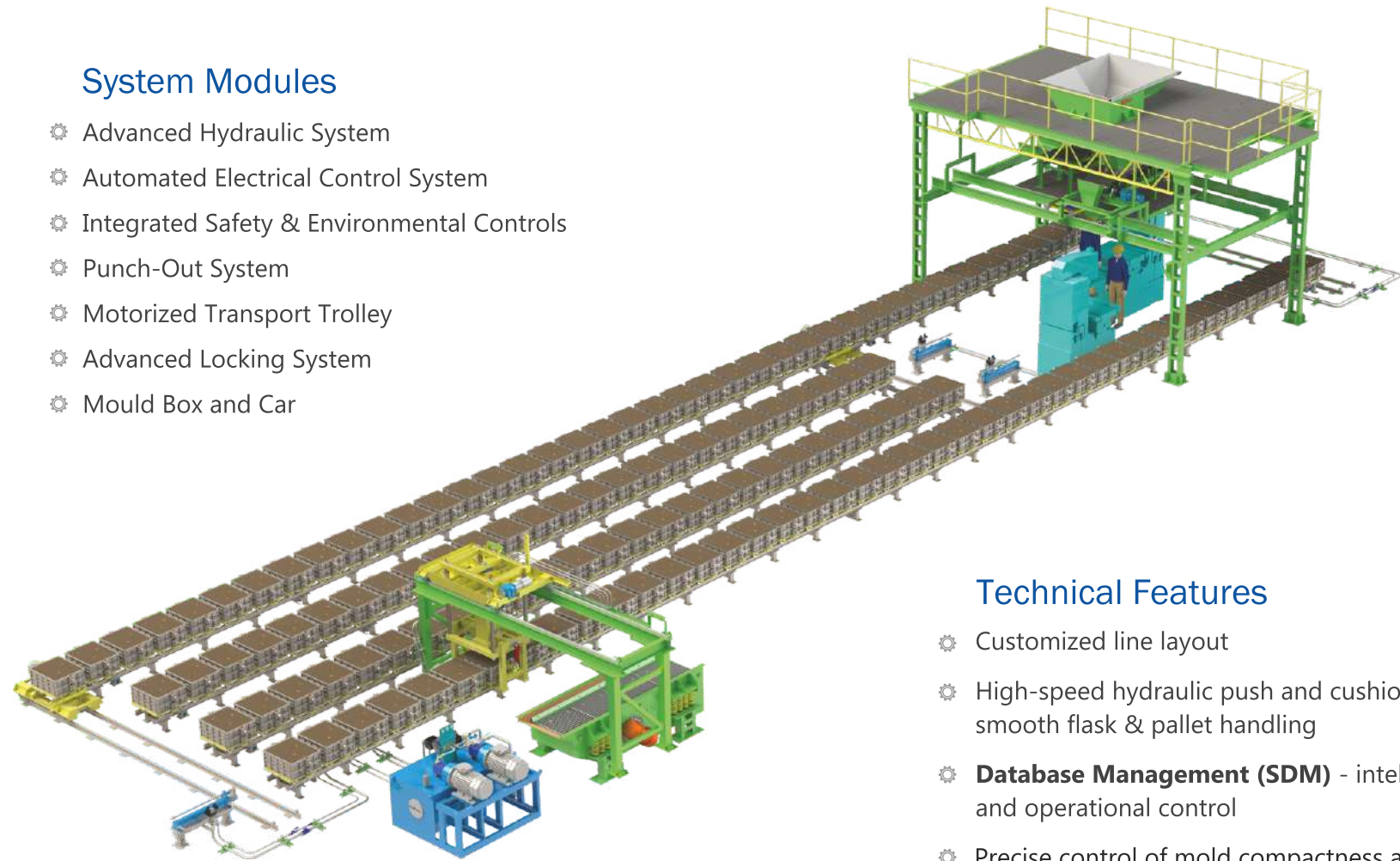
- ⚙ Forming an automated production line with moulding machines, featuring automatic box closing, automatic iron pressing, online operation and sand-free ground.
- ⚙ Accurate positioning, hydraulic buffering.
- ⚙ Machine legs secured with bolts, allowing easy leveling adjustment after foundation settlement.

FLASKLESS  
MOULDING  
LINE

## Mould Handling System

### System Modules

- ⚙️ Advanced Hydraulic System
- ⚙️ Automated Electrical Control System
- ⚙️ Integrated Safety & Environmental Controls
- ⚙️ Punch-Out System
- ⚙️ Motorized Transport Trolley
- ⚙️ Advanced Locking System
- ⚙️ Mould Box and Car



### Technical Features

- ⚙️ Customized line layout
- ⚙️ High-speed hydraulic push and cushion system for smooth flask & pallet handling
- ⚙️ **Database Management (SDM)** - intelligent monitoring and operational control
- ⚙️ Precise control of mold compactness and hardness
- ⚙️ High dimensional accuracy with minimal draft requirement
- ⚙️ Repeatable, stable molding quality batch after batch
- ⚙️ Reduced labor dependency through advanced robotic handling

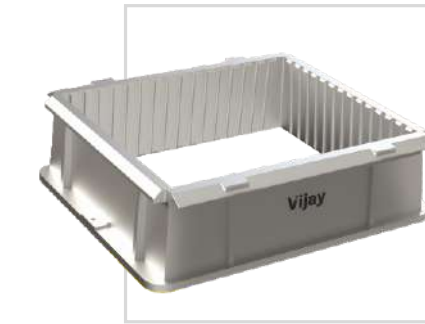
## Mould Boxes & Accessories



Moulding Box



Moulding Car



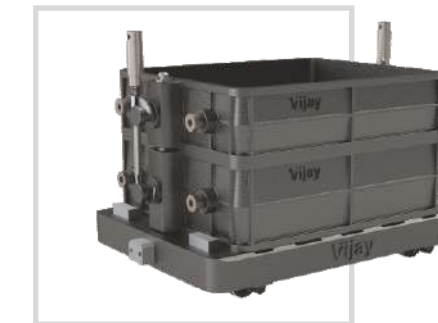
High Pressure Alluminium Moulding Jacket



High Pressure lines Mould Weight



Locks & Guide Pins



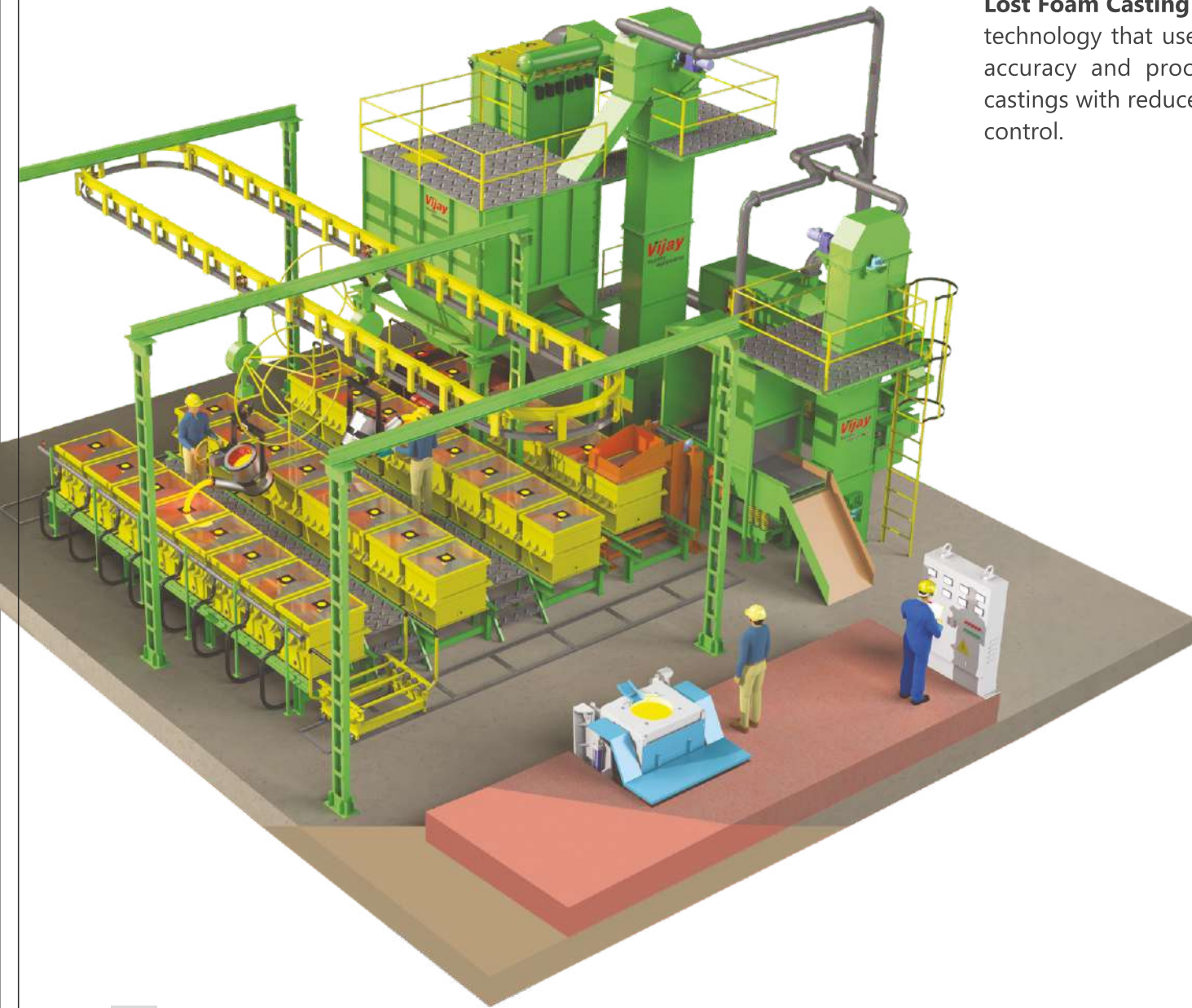
### Size Range

- ⚙️ 400 X 400 mm to 1500 x 1200 mm (Inner size)
- ⚙️ 75 to 350 mm (Height)

### Technical Features

- ⚙️ Heavy-duty construction for demanding foundry operations
- ⚙️ VMC-machined top and bottom surfaces for superior accuracy
- ⚙️ Perfect interchangeability with precision VMC drilling
- ⚙️ Uniform wall thickness ensuring exceptional rigidity
- ⚙️ Parallelism and flatness maintained within  $\pm 0.2$  mm Manufactured from premium FG25 grade cast iron

## Lost Foam Casting Sand Plant



**Lost Foam Casting** is a modern evaporative-pattern metal casting technology that uses foam patterns instead of wax. Designed for accuracy and process simplification, LFC delivers high-quality castings with reduced processing steps and improved dimensional control.

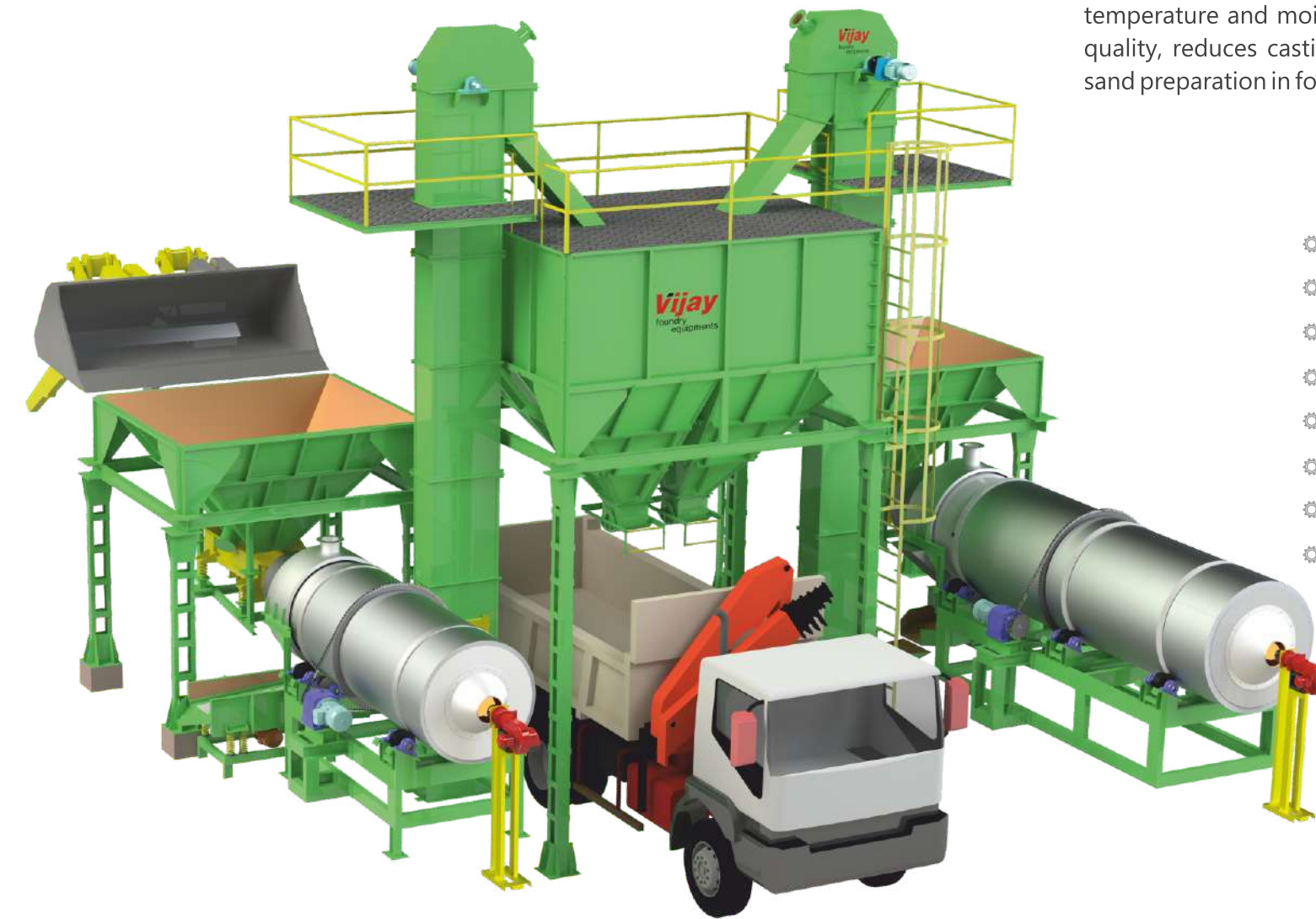
### System Modules

- ⊗ Knockout & Return Sand Handling
- ⊗ Bucket Elevator
- ⊗ Sand Sieving
- ⊗ Sand Cooling
- ⊗ Sand Storage
- ⊗ Compaction Table
- ⊗ Tilting Device
- ⊗ Mould Handling
- ⊗ Metal Handling & Pouring
- ⊗ Dust Collector
- ⊗ PLC-Controlled Automation

### Capacity Range

- ⊗ 10 TO 40 TPH

## Sand Dryer Plant



A **Sand Dryer Plant** is used to remove moisture from reclaimed or fresh sand to achieve consistent sand temperature and moisture levels. It improves mould quality, reduces casting defects, and ensures stable sand preparation in foundries.

### System Modules

- ⊗ Wet Sand Feed Hopper
- ⊗ Vibro Feeder
- ⊗ Rotary Triple-Pass Sand Dryer
- ⊗ Diesel / Gas Fired Burner
- ⊗ Vibro Screen
- ⊗ Bucket Elevator
- ⊗ Sand Storage
- ⊗ Electrical Control Panel

### Capacity Range

- ⊗ 3 TO 5 TPH

## Resin Coated Sand Plant



A **Resin Coating Sand Plant** is used to produce uniformly resin-coated silica sand for shell moulding and core making. The plant ensures consistent grain coating, controlled resin percentage and high thermal stability, resulting in superior casting quality.

### System Modules

- ⚙ Sand Storage and Controlled Distribution
- ⚙ Sand Batching and Weighing
- ⚙ Sand Mixer
- ⚙ Hot Air Oven / Heating System
- ⚙ Screening & Cooling
- ⚙ Bucket Elevator
- ⚙ PLC-Based Automation and Monitoring
- ⚙ Cyclone / Dust Control

### Capacity Range

- ⚙ 3 TO 5 TPH

## Core Shop Automation



We develop advanced machinery and fully automated systems for the complete core shop workflow in foundries. Designed for precision mixing, consistent dosing, automated handling, and fast cycle time, our solutions support green sand, cold box, shell and no-bake processes.

A centralized PLC + HMI control system ensures real-time monitoring, recipe management, and repeatability in sand preparation and core production-significantly improving output, quality and process stability.

### System Modules

- ⚙ Wet Sand Feed Hopper
- ⚙ Vibro Feeder
- ⚙ Bucket Elevator
- ⚙ Screw Conveyor System
- ⚙ Batch Type Core Sand Mixer
- ⚙ Travelling Batch Hopper
- ⚙ Precision Mixing & Dosing Technology

### Capacity Range

- ⚙ 3 TO 9 TPH

## Intensive Sand Mixer



### Technical Features

- Robust design suitable for continuous industrial operation
- Easy access design for preventive and routine maintenance
- Angular precision rotor blades with carbide brazed tips
- High processing efficiency with reduced bentonite consumption
- Dust-sealed construction for safe and clean plant operation
- Short mixing cycle due to controlled feeding and high-intensity mixing
- Auto water dosing and cycle control for process repeatability
- Produces high-quality green sand for consistent casting performance

Model	IM-300 VE	IM-500 VE	IM-750 VE	IM-1000 VE	IM-1500 VE
Batch Capacity (Kg)	300	500	750	1000	1500
Capacity (TPH)	10	15	22	30	40
Diameter of Shell (mm)	1360	1600	1750	1975	1975
Total Height With Batch (mm)	2400	2700	2900	3200	4800
Width & Length (mm)	1505x1640	2340x1920	2620x2110	2900x2250	3400x2600
Drive For Mixing Blade (HP)	25	50	75	100	120
Drive For Blander Blade (HP)	7.5	20	30	40	40x2

## Fluidised Bed Sand Cooler



### Technical Features

- Cooling fin tubes with continuous chilled water circulation
- Bottom air nozzles with adjustable airflow control
- Optional dust extraction with negative pressure control
- Inspection windows and flanged discharge outlet
- No mechanical contact with sand minimal wear
- Stable sand properties for consistent mould quality
- Controlled moisture & temperature levels
- Designed for continuous return-sand workflow
- Low operating and maintenance cost
- Stress - Relief treated body

MODEL	FVC-10VE	FVC-15VE	FVC-22VE	FVC-30VE	FVC-40VE
Capacity (TPH)	10	15	22	30	40
Length x Width (mm)	4000 x 650	4000 x 850	4000 x 1000	5000 x 1000	5000 x 1200
Vibro Power (HP)					
Fluidisation Fan Power (HP)	12	20	30	38	47
Rotary Air Lock (HP)					

## Inline Knockout With Punchout

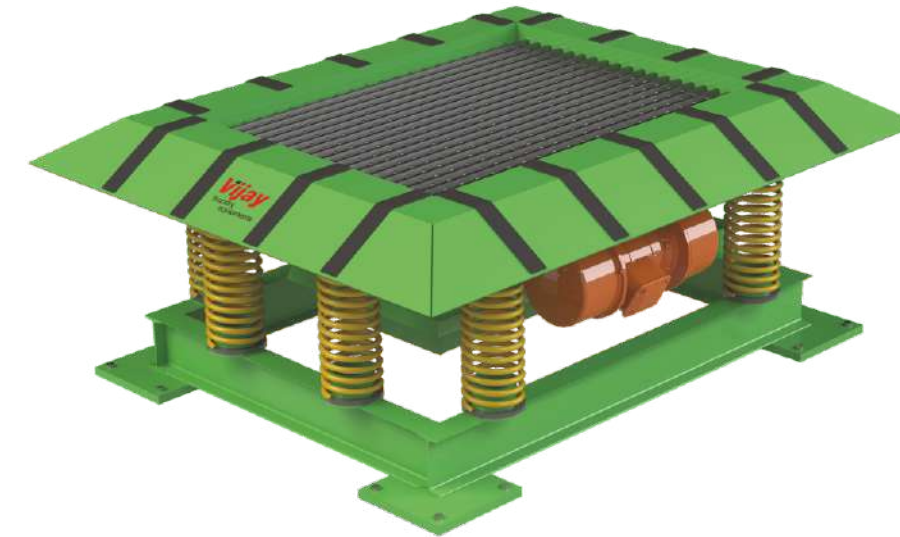


### Technical Features

- ⚙ High throughput capacity
- ⚙ Faster separation and cooling
- ⚙ Reduced labor and handling cost
- ⚙ Robust design suitable for high-temperature casting applications
- ⚙ High structural stability and optimized power flow
- ⚙ Designed for continuous production environments
- ⚙ Stress - Relief treated body

MODEL	IVK 01VE	IVK 02VE	IVK 03VE	IVK 04VE
Grid Size (mm)	1000 x 3500	1250 x 4000	1250 x 6000	1400 x 6000
Electric Motor (Kw)	2.5 x 2	3.8 x 2	4.3 x 2	7.1 x 2

## Stationary Vibro Knock Out



MODEL	SVK 01VE	SVK 02VE	SVK 03VE	SVK 04VE
Grid Size (mm)	1000 x 1255	1255 x 1500	1500 x 1800	1600 x 2000
Electric Motor (Kw)	1.5 x 2	2.2 x 2	3 x 2	2.2 x 2

## Vibro Sand Feeder



### Technical Features

- ⚙ Uniform & Controlled Feeding
- ⚙ Compact, Flexible & Reliable Construction
- ⚙ Ultra-Low Noise Vibro Motors
- ⚙ Stress-Relief Treated Body
- ⚙ Smooth Material Handling
- ⚙ Increased Conveyor Belt Life

## Polygonal Sand Siever



MODEL	PS-10_22VE	PS-22_40VE
Capacity (TPH)	10_22	22_40
Total Height (mm)	1835	2700
L X W (mm)	4126 X 1600	4800 X 2500
Drive Motor (HP)	5	7.5

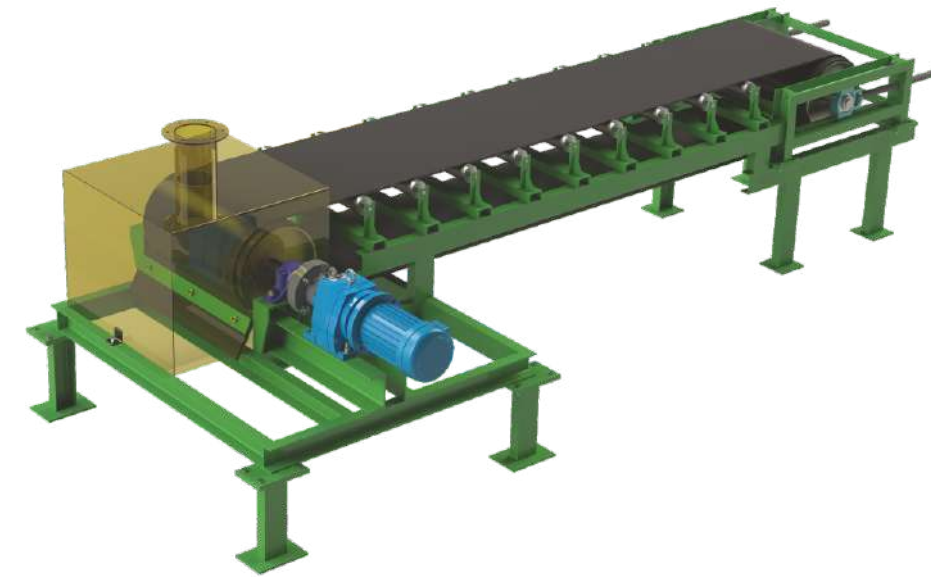
## Dust Collector



### Technical Features

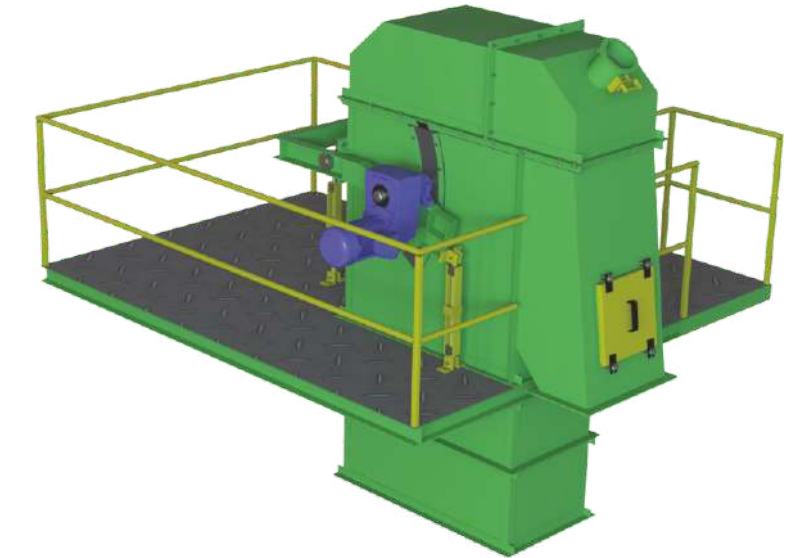
- ⚙ High air-to-cloth ratio (6 to 10 ft/min)
- ⚙ High collection efficiency for fine & respirable dust
- ⚙ Low bag wear due to efficient pulse cleaning
- ⚙ Continuous automatic cleaning
- ⚙ Compact design with long service life

## Belt Conveyor



MODEL	BC 600VE	BC 800VE	BC 1000VE
Belt Width (mm)	600	800	1000
Output (TPH)	60-140	95-220	140-290

## Bucket Elevator



MODEL	BE-10VE	BE-20VE	BE-40VE
Capacity (TPH)	10	20	40
Total Height (mm)	As per required	As per required	As per required
L X W (mm)	750 x 375	1070 x 555	1280 x 645
Drive Motor (HP)	As per required	As per required	As per required

## Sand Preparation Equipments



Intensive Sand Mixer

Model	VE IM 250	VE IM 300
Batch Cap. (Kg)	250	300
Diameter of Shell (mm)	1260	1360
Total Height (mm)	1700	1900
Drive for Mixing Blade (HP)	10	15
Drive for Blander Blade (HP)	5	7.5



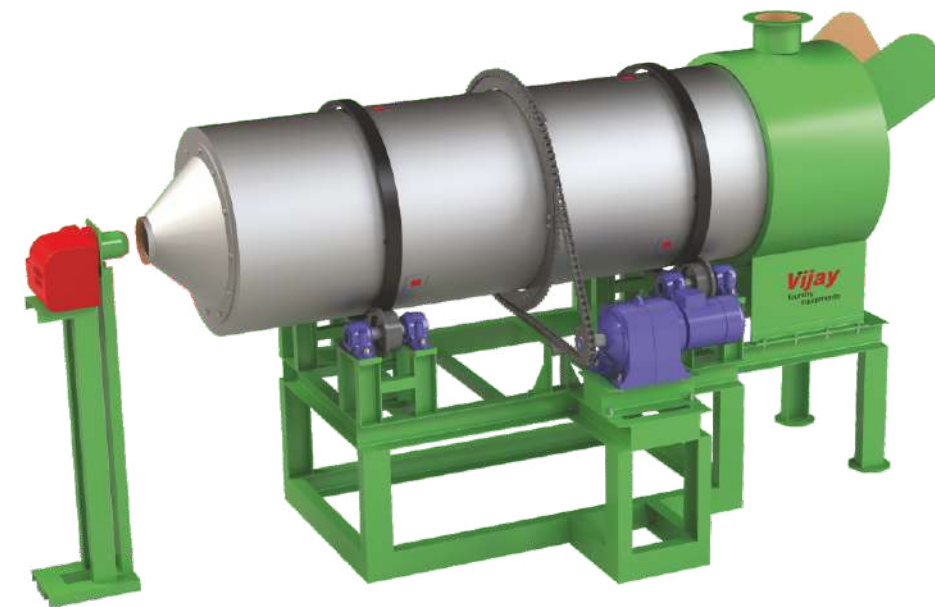
Core Sand Mixer

Batch Capacity(Kg)	Pan Diameter (mm)	Pan Height (mm)	Moter (HP)
50	555	370	3
100	815	530	5
150	1000	530	7.5
250	1260	650	10
300	1360	700	15
500	1600	900	30



Resin Sand Coating Mixer

Model	RSCM 300Kg VE	RSCM 500Kg VE
Batch Cap. (Kg)	300	500
Pan Diameter (mm)	1260	1400
Pan Height (mm)	1145	1200
Motor Used (HP)	25	50



Sand Dryer (Diesel / Gas Fired Type)

Model	VE-SD 02	VE-SD 05
Capacity (TPH)	2	5
No. of Drums	Double	Double
Moisture after Drying	0.5%	0.5%
Motor (HP)	3	5
Fuel to be used	Diesel	Diesel



Co<sub>2</sub> Sand Lump Breaker



Bottom Liner Vibrator

Capacity (Furnace)  
300 Kg - 10 Ton



Liner Vibrator

Capacity (Furnace)  
300 Kg - 10 Ton  
2 Arm to 5 Arm

## Metal Pouring & Handling Equipments



Lip Pouring Ladle  
150 Kg - 10 Ton



Tea Spout Ladle  
150 Kg - 2 Ton



Bottom Pouring Ladle  
500 Kg - 10 Ton



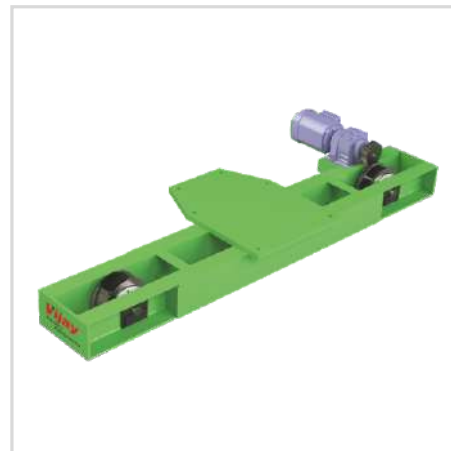
SG Treatment Ladle  
250 Kg - 2 Ton



Direct Pouring SG  
Treatment Ladle  
250 Kg - 2 Ton



Ladle Pre-heater  
250 Kg - 6 Ton



Cranes for pouring  
3-10 Ton



Monorail system  
for pouring

## Fettling Equipments

### Pedestal Grinder

	Specification
Grinding Wheel (Inch)	16"X 2"
Motor (HP)	7.5
Grinding Wheel Speed (RPM)	2200



### Cutter Grinder



### Swing Frame Grinder

	Specification
Grinding Wheel (Inch)	16"X 2"
Motor (HP)	7.5
Grinding Wheel Speed (RPM)	2200



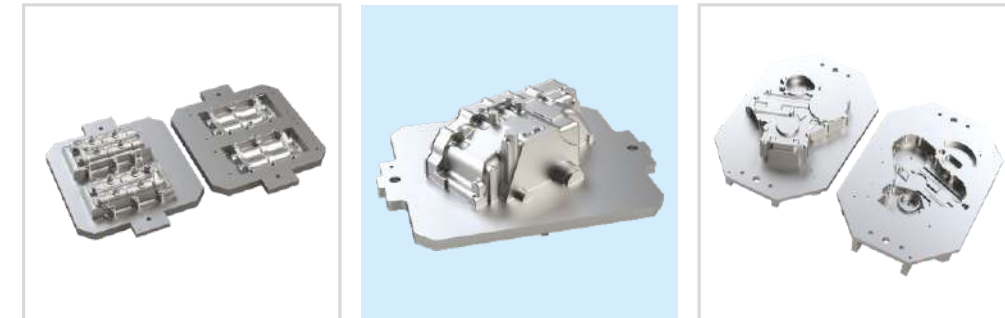
## Dies & Pattern Manufacturing



N164 X31.99 Y81.442 I21.265 J0.  
N166 G2 X51.042 Y71.07 I-31.99 J-81.442  
N168 G3 X105. Y53.702 I53.958 J75.132  
N170 X158.958 Y71.07 I0. J92.5  
N172 G2 X178.01 Y81.442 I51.042 J-71.07  
N174 G3 X191.5 Y101.235 I-7.775 J19.793  
N176 X170.235 Y122.5 I-21.265 J0.  
N178 G2 X178.01 Y81.442 I51.042 J-71.07  
N180 X39.765  
N182 G3 X118.5 Y101.235 I0. J-21.265  
N184 X21.265 Y81.442 I21.265 J0.  
N186 G2 X51.042 Y71.07 I-31.99 J-81.442  
N188 G3 X105. Y53.702 I53.958 J75.132  
N190 X158.958 Y71.07 I0. J92.5  
N192 G2 X178.01 Y81.442 I51.042 J-71.07  
N194 G3 X191.5 Y101.235 I-7.775 J19.793  
N196 X170.235 Y122.5 I-21.265 J0.  
N198 G1 Z-50.  
N200 X39.765  
N202 G3 X18.5 Y101.235 I0. J-21.265  
N204 X31.99 Y81.442 I21.265 J0.  
N206 G2 X51.042 Y71.07 I-31.99 J-81.442  
N208 G3 X105. Y53.702 I53.958 J75.132  
N210 X158.958 Y71.07 I0. J92.5  
N212 G2 X178.01 Y81.442 I51.042 J-71.07  
N214 G3 X191.5 Y101.235 I-7.775 J19.793

## Patterns

### ARPA Line Patterns



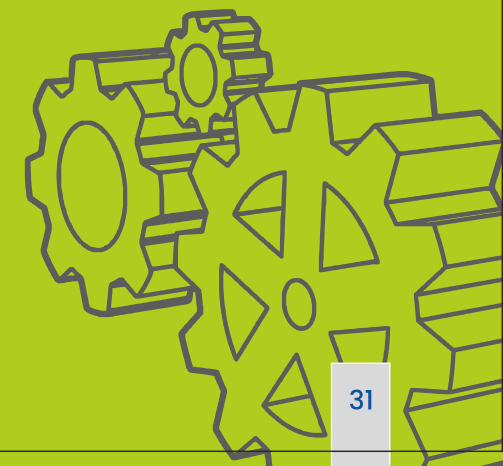
### High Pressure Moulding Patterns



### Hand Moulding Patterns

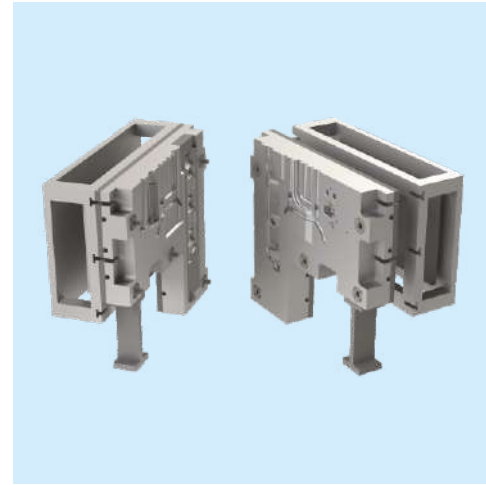


We have an expert and innovative team which is professionally trained for delivering unique design and develop the patterns as per costumers requirements to specifications. We use modern techniques of machining and CAD/CAM Softwares which gives best accuracy and high quality product which satisfies the Customer requirements.

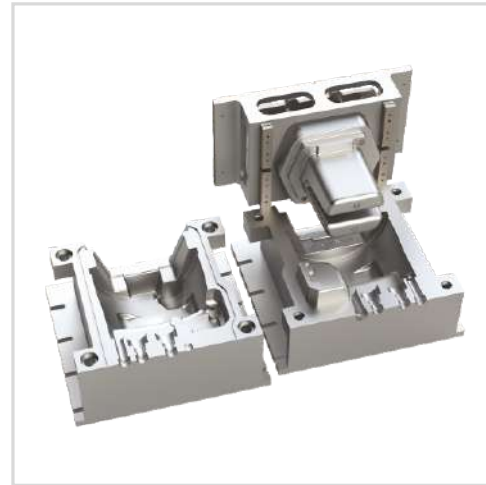
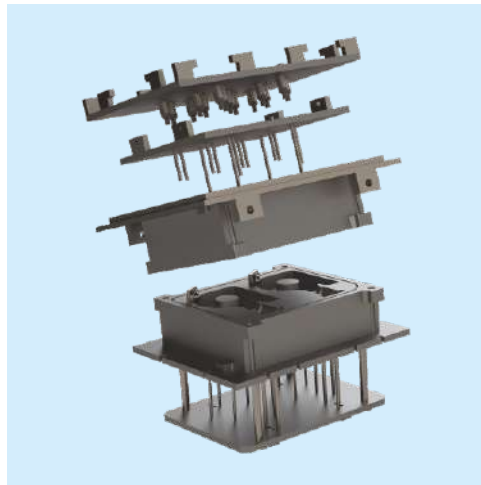
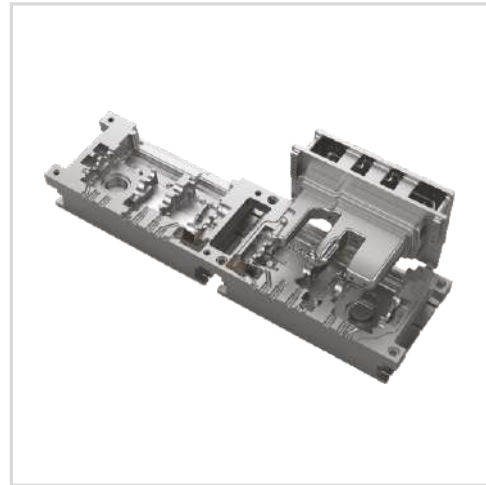


## Core Boxes

### Shell Core Boxes

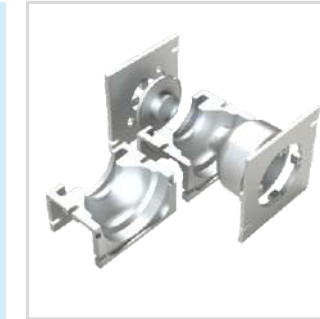


### Cold Core Boxes

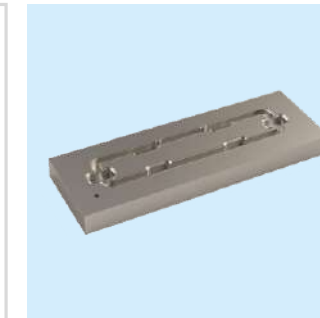
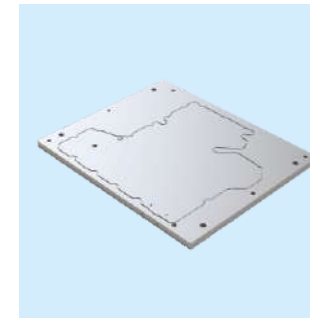


## Dies

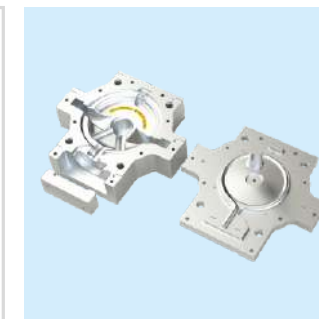
### Lost Foam Dies



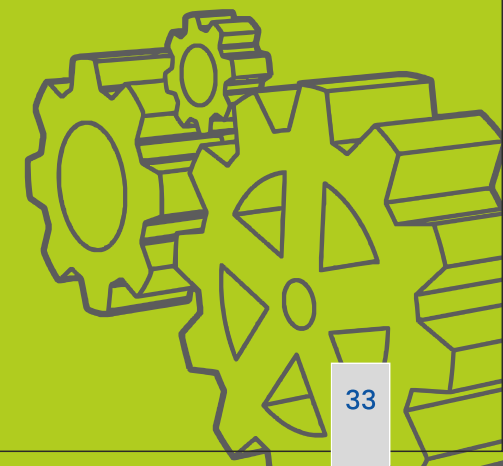
### Rubber Dies



### Wax Dies



We as company dedicated for producing dies with best accuracy and quality Tooling. We manufacture dies for both ferrous and non ferrous casting. We use State of the art and highly specialized tools for high quality dies.



## Pre Sales Service

### Site Survey

Engineers visit the site where the plant is to be erected and based on the survey the plant type and structure is proposed to the client.

### Design & Engineering

Company has its own in house team who continuously innovate and introduce new features to the our foundry equipments.

## After Sales Service

### Free Training

The company provide free on site training to customers designated personnel during the time of commissioning of plant.

## On Sales Service

### Erection & Commissioning

The Company has its own vertical for plant installation where mechanical and electrical engineers are deployed for installing the plant. These engineers are robustly trained to successfully install various range of plants in all types terrain. These plants are installed on the site by engineers and a test run of the plant is made before the handing over of the plant to new customers.

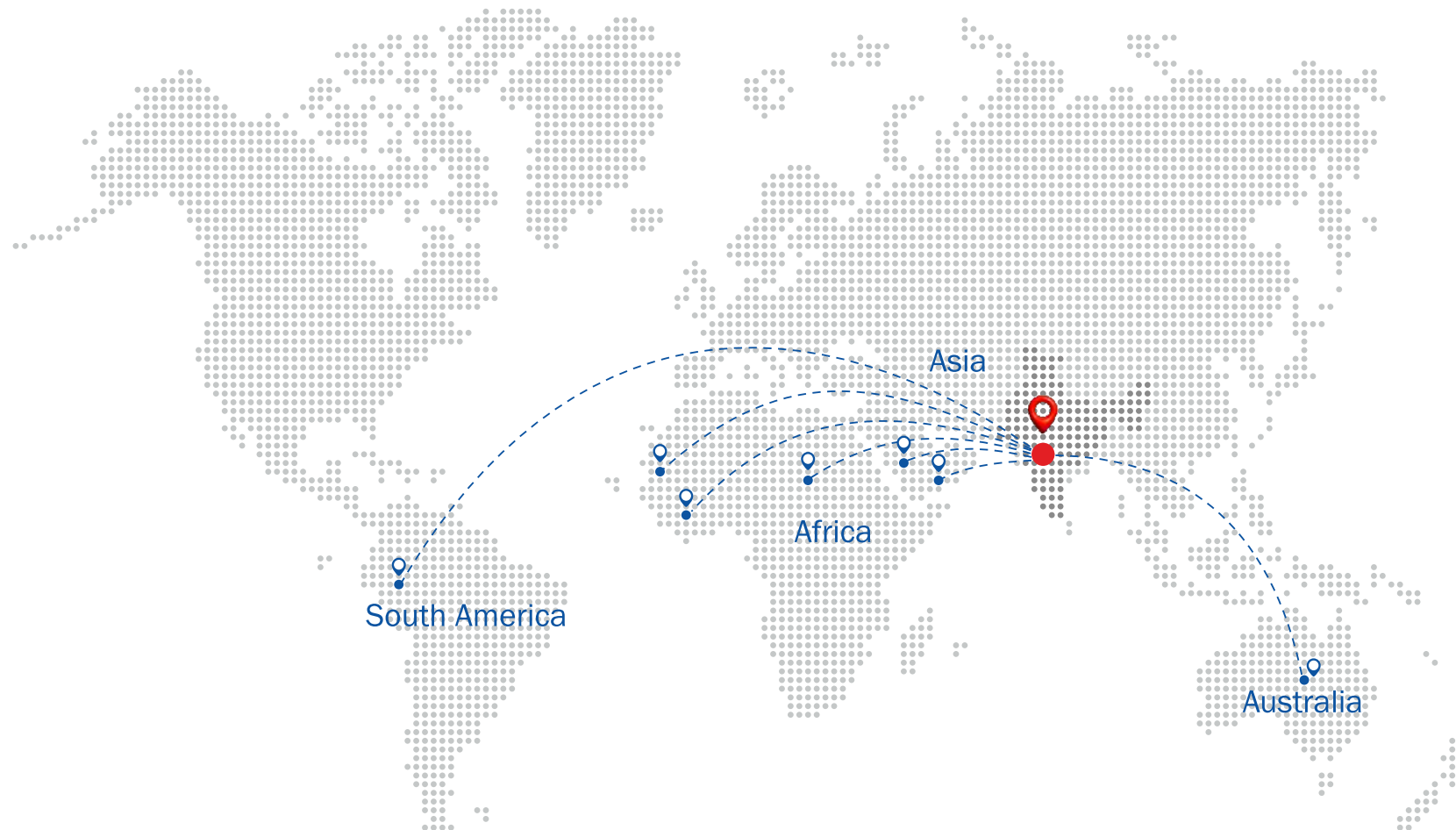
### Spare Parts

In order to provide uninterrupted support to our customers the company maintains adequate stock levels in its own stock yard and continuous supplies spare parts to the dealer partner.

Setting  
Service  
Standards,  
Worldwide



# Global Business



**500 +**  
Happy Customers

**50 +**  
Winning Award

**100 +**  
Project Completed

## Exhibition Event



## Our Achievement



SMAK Special Honor Award Given By Dr. Yashwant Thorat, Chairman, NABARD 2007



Outstanding Entrepreneur District Award Given By Cabinet Minister Deepak Kesarkar

